

REMARKS

Claims 1, 3-7 and 9-20 are pending in the application. It is gratefully acknowledged that Claims 14-20 have been allowed. It is also gratefully acknowledged that Claims 6 and 13 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner has rejected Claims 1-5 and 7-12 under 35 U.S.C. §103(a) as being unpatentable over Blakeney, II et al. (U.S. Patent 5,490,165) in view of Naruse et al. (U.S. Patent 6,263,010).

The Examiner rejected Claims 1-5 and 7-12 under 35 U.S.C. §103(a). Both independent Claims 1 and 7 recite that the minimum phase variation period is determined based on the PN phase information *and the PN energy information*. Neither Naruse et al. nor Blakeney, II et al. discloses this element. The Examiner concedes on page 5 of the Office Action that Blakeney, II et al. does not disclose this element, and since Naruse et al. does not cure this deficiency, as Naruse et al. uses only PN phase information as stated at col. 7, lines 23-24, the combination does not teach or disclose the element.

Furthermore, the apparatus and method recited in the claims can increase the speed of obtaining synchronization, i.e. setting an initial phase synchronization value, of the multi-carriers. The multi-carriers, by definition, are a plurality of carriers with the same PN code phase values. Both Blakeney, II et al. and Naruse et al. store synchronization search values in a memory, assign the synchronization search values to each searcher, and then search for values within a specific range. Blakeney, II et al. uses a plurality of searchers to search a plurality of sectors of a specific base station. Naruse et al. stores phase values per sector and performs synchronization phase searching based on the stored values. Claims 1 and 7 are clearly distinct.

Also, Blakeney, II et al. discloses at col. 18, lines 58-64, that at least one searcher conducts a full search, i.e. all phase values are searched. This is distinct from the different starting points of the phase search recited in Claims 1 and 7 of the present application.

Moreover, Fig. 6 of Naruse et al. shows offset values being determined on the basis of an initial reference phase. The claims of the present application are distinct in

that the phase search starting points are based on dividing the entire phase area into separate sections.


In conclusion, the phase searching of the present application applies to the multi-carrier having the same phase, but the cited references conduct phase searching per sectors having different phases. The searching speed is increased by the search starting points of the divided range, using the plurality of searchers. The predetermined offset values and searching within a minimum phase variation scope of the cited references is a slower search process than that recited in the claims.

Based on the foregoing arguments, either alone or in combination, withdrawal of the rejections of the claims is warranted. Neither Blakeney, II et al. nor Naruse et al., either alone or in combination, teach or disclose the recitations contained in the claims.

Independent Claims 1 and 7 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3-6 and 9-13, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3-6 and 9-13 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 3-7 and 9-20, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,


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